

TABLE 2.—*Solar and sky radiation received on a horizontal surface.*

Week beginning	Average daily radiation.			Average daily departure for the week.			Excess or deficiency since first of year.		
	Washington.	Madison.	Lincoln.	Washington.	Madison.	Lincoln.	Washington.	Madison.	Lincoln.
Jan. 1....	<i>cal.</i>	<i>cal.</i>	<i>cal.</i>	<i>cal.</i>	<i>cal.</i>	<i>cal.</i>	<i>cal.</i>	<i>cal.</i>	<i>cal.</i>
8.....	154	115	173	— 6	— 28	— 13	— 44	— 198	— 91
15.....	65	159	210	— 103	+ 7	+ 13	— 763	— 150	± 0
22.....	228	137	161	+ 52	— 31	— 49	— 398	— 368	— 344
	235	150	133	+ 73	— 37	— 92	+ 114	— 630	— 99

## MEASUREMENTS OF THE SOLAR CONSTANT OF RADIATION AT CALAMA, CHILE, DECEMBER, 1920.

By C. G. ABBOT.

In continuation of the preceding publications, I give in the following table the results obtained at Montezuma, near Calama, Chile, in December, 1920, for the solar constant of radiation. The reader is referred to this REVIEW for February, August, and September, 1919, for statements of the arrangement and meaning of the table.

Mr. L. H. Abbot succeeded Mr. A. F. Moore as director of this station on December 22.

Date.	Solar constant.	Method.	Grade.	Humidity.			Remarks.
				Transmission coefficient at 0.5 micron.	$\rho/\rho_{SC}$ .	V. P.	
1920. A. M. Dec. 3	<i>cal.</i>						
	1.945	M <sub>1</sub> . <sub>4</sub> ...	S	0.858	0.589	c. m.	<i>Per ct.</i>
	1.943	M <sub>1</sub> . <sub>4</sub> ...					
	1.944	W. M.					
4	1.964	M <sub>2</sub> ....	S	.859	.516	.22	17
	1.968	M <sub>1</sub> . <sub>4</sub> ...					
	1.966	W. M.					
5	1.936	E <sub>o</sub> ....	VG+	.874	.482	.44	41
	1.974	M <sub>2</sub> ....					
	1.955	M <sub>2</sub> ....					
	1.956	M <sub>2</sub> ....					
	1.955	W. M.					
6	1.959	M <sub>2</sub> ....	S—	.872	.618	.23	21
	1.963	M <sub>2</sub> ....					
	1.950	M <sub>2</sub> ....					
	1.959	W. M.					
7	1.953	M <sub>2</sub> ....	S	.877	.550	.23	22
	1.951	M <sub>2</sub> ....					
	1.950	M <sub>2</sub> ....					
	1.954	W. M.					
8	1.949	E <sub>o</sub> ....	VG	.875	.497	.38	40
	1.960	M <sub>2</sub> ....					
	1.973	M <sub>2</sub> ....					

## MONTHLY WEATHER REVIEW.

Date.	Solar constant.	Method.	Grade.	Transmission coefficient at 0.5 micron.	Humidity.			Remarks.
					$\rho/\rho_{SC}$ .	V. P.	Relative humidity.	
1920. A. M. Dec. 8	<i>cal.</i>							
	1.945	M <sub>1</sub> . <sub>4</sub> ...						
	1.950	W. M.						
P. M. 10	1.961	M <sub>1</sub> . <sub>4</sub> ...	S—	.865	.663	.49	27	Clouds forming in various directions. Clear around sun.
	1.972	M <sub>1</sub> . <sub>4</sub> ...						
	1.962	M <sub>1</sub> . <sub>4</sub> ...						
	1.965	W. M.						
A. M. 11	1.984	E <sub>o</sub> ....	E—	.866	.501	.36	42	
	1.961	M <sub>2</sub> ....						
	1.976	M <sub>2</sub> ....						
	1.979	M <sub>2</sub> ....						
	1.977	W. M.						
12	1.956	M <sub>2</sub> ....	S	.875	.634	.28	27	
	1.960	M <sub>2</sub> ....						
	1.959	W. M.						
13	1.945	M <sub>2</sub> ....	S—	.877	.652	.18	18	Low cirri in east.
	1.954	M <sub>2</sub> ....						
	1.973	M <sub>2</sub> ....						
	1.957	W. M.						
14	1.948	M <sub>2</sub> ....	S	.875	.648	.18	16	Cirri low in east.
	1.946	M <sub>2</sub> ....						
	1.945	W. M.						
15	1.971	E <sub>o</sub> ....	VG+	.871	.654	.21	21	
	1.945	M <sub>2</sub> ....						
	1.954	M <sub>2</sub> ....						
	1.942	M <sub>2</sub> ....						
	1.949	W. M.						
16	1.954	M <sub>2</sub> ....	S	.872	.706	.30	22	
	1.952	M <sub>1</sub> . <sub>4</sub> ...						
	1.953	W. M.						
17	1.960	M <sub>2</sub> ....	S	.873	.703	.34	26	
	1.964	M <sub>1</sub> . <sub>4</sub> ...						
	1.962	W. M.						
18	1.945	M <sub>2</sub> ....	S	.864	.626	.34	24	Some cirri in north.
	1.962	M <sub>1</sub> . <sub>4</sub> ...						
	1.954	W. M.						
19	1.950	M <sub>2</sub> ....	S—	.875	.740	.26	18	Cirri low in north and east.
	1.968	M <sub>1</sub> . <sub>4</sub> ...						
	1.959	W. M.						
20	1.941	M <sub>2</sub> ....	S	.871	.618	.18	18	Do.
	1.959	M <sub>2</sub> ....						
	1.950	W. M.						
P. M. 22	1.962	M <sub>1</sub> . <sub>4</sub> ...	S—	.864	.656	.28	13	Cirri in most of sky preventing earlier observations.
	1.935	M <sub>1</sub> . <sub>4</sub> ...	S—	.856	.503	.38	15	Scattered cirri, especially in east.
	1.953	M <sub>1</sub> . <sub>4</sub> ...						
	1.944	W. M.						
A. M. 30	1.955	M <sub>1</sub> . <sub>4</sub> ...	S	.853	.512	.47	40	Small patch of cirri near sun prevented earlier observations.
	1.954	M <sub>1</sub> . <sub>4</sub> ...						
	1.954	W. M.						
31	1.959	M <sub>2</sub> ....	S	.856	.415	.54	62	Cirri low in east and north.
	1.972	M <sub>2</sub> ....						
	1.966	W. M.						

Some cirri low in east.